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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/899,421

07/05/2001

Alexander Klausener

Mo-6466/LeA 34,706

3351

157

7590

10/01/2002

BAYER CORPORATION
PATENT DEPARTMENT
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

MURPHY, JENNIFER C

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 10/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,421

Applicant(s)

KLAUSENER ET AL.

Examiner

Jennifer C. Murphy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

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DETAILED ACTION

Claims 1-11 are pending in this application. The Office received the information disclosure statement submitted by applicant, entered on 02/07/02, entered as paper no. 5.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-9 in part when the end product is a 2-alkyl-aryloxaziridine where X is a C₆-C₁₂ aryl, drawn to methods of making, classified in class 548, various subclasses.
- II. Claims 1-9 in part when the end product is a heteroaryloxaziridine where X is a heterocycle, drawn to methods of making, classified in class 548, various subclasses.
- III. Claims 10 and 11, drawn to compounds, classified in class 548, subclass 959.

Inventions I-II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the products of group V may be made by materially different processes, as employed by the inventions of groups I-IV. Furthermore, the methods of making claimed in groups I-IV may make materially different end-products other than those in group V, by employing the use of materially different starting materials, reagents, etc.

Inventions I and II are drawn to methods of making. Each method can use materially different starting materials and reagents in order to make materially different intermediates and end-product compounds.

These inventions are distinct for the reasons given above. Because the search required for groups I-II is not required for group III and the searches required for each of the inventions (I and II) drawn to methods of making is different, restriction for examination purposes as indicated is proper.

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During a telephone conversation with Mr. Richard Henderson on 09/06/02 a provisional election was made with traverse to prosecute the invention of group I, claims 1-9 in part when the end product is a 2-alkyl-aryloxaziridine and where X is a C₆-C₁₂ aryl, drawn to methods of making. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9 in part when the end product is a heteroaryloxaziridine where X is a heterocycle, drawn to methods of making and 10-11 in whole (drawn to compounds), are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

Claims 1-9 are objected to, as they contain non-elected subject matter. These objections can be overcome by amending the claims to cancel the non-elected subject matter, for example.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krimm, et al. (US 2784182) in view of Schirmann, et al. (US 3819653).

II. Claims 1-7 are also rejected under unpatentable over Bulachkova, et al. 35 U.S.C. 103(a) as being unpatentable over Bulachkova, et al. (abstract only of Russian paper) in view of Schirmann, et al. (US 3819653).

Applicants claim a process wherein an N-alkyl-aryldimine is oxidized by an aromatic percarboxylic acid, preferably monoperoxyphthalic acid (see page 4, lines 26 & 27) in an

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aqueous medium, in the presence of a water-miscible base and water-miscible solvent at a temperature $< 30^{\circ}\text{C}$.

Determination of the scope and content of the prior art (MPEP §2141.01)

I. Krimm, et al. disclose the oxidation of aldimines (or Schiff's bases) by aromatic percarboxylic acids, in the presence of a water-miscible base (potassium carbonate, for example; see column 8, line 30 in Example 15) at a temperature of from $0^{\circ}\text{C} - 100^{\circ}\text{C}$.

Schirmann, et al. disclose a method for preparing substituted oxaziridines by oxidation of N-alkyl-arylaldimines with peracids, in the presence of water-soluble solvents and at a temperature $< 30^{\circ}\text{C}$ in an aqueous environment (column 2, lines 54-58).

II. Bulachkova, et al. disclose the preparation of substituted alkyl-aryl-oxaziridines from the oxidation of aldimines (Schiff bases) via an aromatic peracid at a temperature $< 30^{\circ}\text{C}$ (see abstract provided).

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The Krimm reference does not utilize water-miscible solvents but uses instead benzene, chloroform, toluene, nitrobenzene and the like (see column 3, lines 66-71).

The Schirmann reference first adds a nitrile of general formula II to the imine into a peroxyacid in the presence of water and a water-miscible base such as ethanol (column 2, lines 60-63).

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

However, it would have been prima facie obvious for one of ordinary skill in the art at the time of filing to combine the Krimm and Schirmann references and to combine the Schirmann and Bulachkova references. Applicants state in the specification that the process of oxidizing imines and/or arylaldimines by both aromatic (see page 2, lines 1-5) and non-aromatic peroxyacids (page 1, lines 7-10) into the corresponding aryl-oxaziridines, are known methods in the art. One of ordinary skill in the art would have been motivated to conduct the instantly claimed process in an aqueous environment in view of the Schirmann reference when said reference specifically points out that an aqueous environment is advantageous in the reaction (column 2, lines 54-58). Furthermore, optimization of reaction conditions such as temperature or concentration or other process conditions of a known process or routine

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experimentation common in the art does not impart patentability unless the recited ranges are critical, i.e., they produce a new and unexpected result. *In re Aller, et al.*, (CCPA 1955) 220 F2d 454, 105 USPQ 233.

The test for combining references is not what individual references themselves suggest but rather what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (1971). Furthermore, the claimed process is no more than a selective combination of prior art teachings done in a manner obvious to one of ordinary skill in the art since each step of the process appears to be relatively complete in itself and there is no indication of an interaction between steps of such a type that would lead one of ordinary skill in the art to doubt that a substitution of alternative steps known to the art could be made. *In re Mostovich*, 144 USPQ 38 (1964). Additionally, no more than routine skill is involved in adjusting the amount of a component of the claimed process (i.e., claims 8 and 9, both of which recited various percent by weight amounts for reactants and equivalents) to suit a particular starting material in order to achieve the result taught in the prior art. *Ex parte Rasmussen* (POBA 1959) 123 USPA 38.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer C. Murphy, whose telephone number is (703) 305-0159. The examiner can normally be reached on Monday-Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane, can be reached at (703) 308-4537. The Unofficial fax phone number for this Group is (703) 308-7921. The Official fax phone numbers for this Group are (703) 308-4556 or 305-3592.

When filing a FAX in Technology Center 1600, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

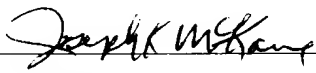
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Joseph.McKane@uspto.gov]. All Internet e-mail communications will be

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made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-1234.

Jennifer C. Murphy
September 30, 2002



Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626
Technology Center 1600